

SPECIFICATION

Title

"A MAGNETIC IMAGE ASSEMBLY TO MOUNT ON GARAGE DOOR PANELS AND A SYSTEM AND A METHOD FOR DECORATING A GARAGE DOOR"

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BACKGROUND OF THE INVENTION

The present invention relates generally to the field of panel covers for doors. More specifically, the present invention relates to panel covers for garage doors having printed designs, pictures and/or indicia wherein the use of more than one of the covers 10 creates an image on the garage door. The images created by the covers may be seasonal or festive themes, celebratory salutations and/or personal messages, for example. The decorative cover assembly may provide a magnetic backside which may be attached to a front side having printed designs, pictures and/or indicia.

15 It is generally known to provide decorative devices to display during special occasions, holidays or celebrations such as, for example, birthday cakes, Christmas trees and wedding bells. Decorative devices are typically displayed within the windows of a home and throughout interiors of a home. Occasionally, decorative 20 devices are also displayed in a residential yard and on the exterior of the home. Decorative devices are often printed images signifying valued symbols relating to a special occasion. The images are often printed on pieces of paper or cardboard to provide images for display. Often images are created large in scale.

25 Large images are often more desirable because they are easier to view from a distance. A home having a garage has a large flat outer surface on the garage door that provides a convenient display surface for the large images.

30 However, simply attaching a large image to a garage door is problematic because the large image typically restricts the garage door from opening and closing. Many garage doors have multi-panel doors wherein the panels are hinged and attached to a roller track assembly. When the multi-panel door opens and closes, the distance

between each panel increases and decreases as the panels move along the roller track assembly. In the past, images have been attached to garage door covers wherein the garage door cover typically fits around the face of the garage door. However, a garage door cover 5 that attaches across the face of the garage door often tears and/or dislodges from the garage door during the opening and/or the closing of the garage door due to movement of the panels along the roller track assembly.

Some decorative devices have attempted to solve this problem 10 with complex attachment assemblies that allow the decorative devices to compensate for the movement of the panels along the roller track assembly and permit the garage door to open and close without hindrance from the decorative devices. However, the complex attachment assemblies typically require time and energy to 15 construct. Further, some decorative devices are known that magnetically attach to the garage door but do not utilize the entire face of the garage door.

A need, therefore, exists for a magnetic image to mount on garage door panels to display decorative images relating to 20 special occasions, holidays, celebrations and/or personal messages. Further, a need exists for a method and a system for printing the magnetic images, mounting the magnetic images to garage door panels, opening and closing the garage door without dislodging the magnetic images from the garage door panels and removing the 25 magnetic images from the garage door panels without damaging the surface of the garage door panels.

SUMMARY OF THE INVENTION

The foregoing deficiencies and drawbacks are solved by providing a magnetic cover assembly to mount on garage door panels 30 to display decorative images and/or personal messages or the like. The magnetic cover assembly may be constructed from more than one magnetic image. The magnetic cover assembly may relate to a special occasion, a holiday and/or a celebration. The magnetic

image may be shaped having four sides, such as, for example, a square or a rectangle.

To this end, in an embodiment of the present invention, a magnetic cover assembly for mounting on garage door panels is provided. The assembly has a first sheet having a first planar side and a second planar side oppositely juxtaposed to one another wherein the first side is a magnetic layer to removably attach the first sheet to the garage door panel. The assembly also has a second sheet having a first planar side and a second planar side oppositely juxtaposed to one another wherein more than one sheet align to create an image encompassing more than one of the garage door panels.

In an embodiment, the assembly has an image on the second side of the first sheet.

15 In an embodiment, the assembly has a protective layer to connect to the second side of the first sheet.

In an embodiment, the assembly has a light emitting material to attach to the second side of the first sheet.

16 In an embodiment, the assembly has a light reflective layer to attach to the second side of the first sheet.

In an embodiment, the assembly has a light reflective layer to attach to the images.

In an embodiment, the assembly has a synthetic layer to attach to the second side of the first sheet.

25 In an embodiment, the assembly has indicia to form the images.

In an embodiment, the assembly has a decorative design to form the images.

In another embodiment of the present invention, a decorative display system for a door is provided. The system has a plurality of door panels that connect to the door. The system also has a plurality of magnetic sheets having a front side and a backside opposite one another wherein the backside attaches to the plurality of door panels. Further, the system has an image printed on the

front sides of the plurality of magnetic sheets wherein a design is created by aligning the plurality of magnetic sheets on the plurality of door panels.

In an embodiment, the system has indicia to form the image.

5 In an embodiment, the system has a light reflective layer to attach to the front side.

In an embodiment, the system has a light emitting material to attach to the front side.

In an embodiment, the system has a protective layer to attach 10 to the front sides of the plurality of magnetic sheets wherein the protective layer is transparent.

In another embodiment of the present invention, a method for 15 decorating a garage door wherein the garage door is divided into garage door panels is provided. The method has the steps of: creating a decorative design; separating the decorative design into a plurality of segmented images to connect to a plurality of magnetic sheets; printing the plurality of segmented images on the plurality of magnetic sheets wherein the plurality of magnetic sheets have front sides that receive the plurality of segmented 20 images; and attaching each of the magnetic sheets to a corresponding one of each of the garage door panels to form the decorative design.

In an embodiment, the method further has the step of printing indicia on the front sides.

25 In an embodiment, the method further has the step of laminating the magnetic sheets.

In an embodiment, the method further has the step of attaching a protective layer to the front sides of the plurality of magnetic sheets.

30 In an embodiment, the method further has the step of attaching a light emitting material to the front sides of the plurality of magnetic sheets.

In an embodiment, the method further has the step of attaching

a light reflective layer to the front sides of the plurality of magnetic sheets.

It is, therefore, an advantage of the present invention to provide a magnetic cover assembly to mount on garage door panels 5 and a system and a method for decorating a garage door which displays a decorative image and/or personal message on the outer surface of garage door panels.

Another advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system 10 and a method for decorating a garage door which provides a multi-colored decorative image and/or personal message.

And, an advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which removably attaches 15 magnetically to garage door panels.

Yet another advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which requires little time or energy to attach the magnetic cover assembly to the 20 garage door panels.

A further advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which contains decorative images and/or personal messages printed from a computer printer.

25 A still further advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which protects the garage door panel from weathering cause by outdoor conditions.

30 Moreover, an advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which provides a decorative image and/or personal message that glows in the dark.

And, another advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which provides a decorative image and/or personal message that reflects light.

5 Yet another advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which combines with more than one magnetic cover assembly to create a decorative image and/or personal message encompassing more than one garage
10 door panel.

Another advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which permits the garage door to open and close when the decorative image and/or personal
15 message encompasses more than one garage door panel.

Yet another advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door wherein a decorative image and/or personal message is visible from a
20 distance.

A still further advantage of the present invention is to provide a magnetic cover assembly to mount on garage door panels and a system and a method for decorating a garage door which detaches from the garage door panels without causing damage to the
25 surface of the garage door panels or damage to the magnetic cover assembly.

Additional features and advantages of the present invention are described in, and will be apparent from, the detailed description of the presently preferred embodiments and from the
30 drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a front plan view of a garage door having a magnetic cover assembly mounted thereon in an embodiment of the present

invention.

Fig. 2 is a side view of a roller track assembly and the garage door in a closed position having magnetic cover assembly mounted thereon in an embodiment of the present invention.

5 Fig. 3 is a cross-sectional view of a magnetic image and a garage door panel in Fig. 1 as taken along line III-III in an embodiment of the present invention.

Fig. 4 is an alternate embodiment of a cross-sectional view of a magnetic image and a garage door panel in an embodiment of the 10 present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention generally relates to an assembly, a system and a method that provides a magnetic image assembly to mount on a garage door having printed designs, pictures and/or 15 indicia wherein the use of more than one of the covers creates an image on the garage door. To this end, the assembly, system and method creates images which may be seasonal or festive themes, celebratory salutations and/or personal messages, for example.

Referring now to the drawings wherein like numerals refer to 20 like parts, Fig. 1 illustrates a garage door 10 which may have a top row of garage door panels 12. Additionally, the garage door 10 may have a second row of garage door panels 14. Further, the garage door 10 may have a third row of garage door panels 16. Still further the garage door 10 may have a bottom row of garage 25 door panels 18. Preferably the garage door panels are constructed from a metal or other material which attracts a magnet.

Fig. 1 further illustrates a top magnetic image 22 which may attach to the top row of the garage door panels 12. Additionally, a second magnetic images 24 may attach to the second row of the 30 garage door panels 14. Further, a third magnetic images 26 may attach to the bottom row of the garage door panels 16. Still further, a bottom magnetic image 28 may attach to the bottom row of the garage door panels 18. The magnetic images 22, 24, 26 and 28

may be connected to a first layer 30.

Moreover, the first layer 30 may be constructed from a magnetic layer, such as, for example, a flexible magnetic sheeting wherein the magnetic layer may attach to the garage door panels.

5 Further, the magnetic layer may be a continuous magnetic layer which may cover the first layer 30. The magnetic sheeting may be constructed from, for example, a strontium ferrite powder with a polymer wherein the ferrite granulate is magnetized. The magnetic sheeting may have a thickness of, for example, 0.030 inches.

10 As illustrated in Fig. 2, the magnetic images 22, 24, 26 and 28 may have a second layer, 42, 44, 46 and 48, respectively, which may be connected to the first layer 30. The second layer 42, 44, 46 and 48 may be constructed from a printable medium, for example, vinyl or the like, which may be capable of receiving images.

15 Further, the images on the second layers 42, 44, 46 and 48 may be generated by a printer (not shown in the drawings), such as, for example, a printer attached to a computer or the like. Still further, the computer printer may generate multi-colored images. Moreover, the printer may print with an ink or other like material 20 that is suitable for exterior applications, such as, for example, an ultraviolet based ink.

The images printed on the second layers 42, 44, 46 and 48, may be a segment of a decorative design and/or a personal message. One or more of the magnet images, 22, 24, 26 and 28 having the second 25 layers, 42, 44, 46 and 48, respectively, with the printed images may align to create a decorative design and/or a personal message. Further, the decorative design and/or the personal message may relate to a special occasion, a holiday and/or a celebration, such as, for example, a diploma for a graduation, a cake for a birthday, 30 or the like. Moreover, the personal message may convey a communication between members of a home and/or members of a neighborhood, such as, for example, "Welcome Home", "Congratulations", or the like. Furthermore, the printed images

may be an image containing a message. For example, each may have one or more words which when assembled or arranged may form a message, such as, for example, "Welcome Home From the Hospital."

Alternatively, the printable medium may be constructed with 5 a glow in the dark material, such as, for example, a photo-luminescent plastic resin, a zinc sulfide plastic resin or the like. Further, the photo-luminescent plastic resin may be, for example, polyethylene, polypropylene, ABS, polycarbonate or polyurethane pellets which may be molded into a thin layer using, 10 for example, sheeting molding techniques or the like. Still further, the printed images may be printed on the glow in the dark material by a printer, such as, for example, a printer attached to a computer. The glow in the dark material may provide an image with light emitting characteristics which may permit the decorative 15 design and/or the personal message to be visible in dark surroundings. Moreover, the glow in the dark material may provide assistance for locating the garage door and/or the garage.

The printable medium may be constructed with a light reflective material, such as, for example, a reflective film or the 20 like. Further, the image may be printed on the light reflective material by a printer, such as, for example, a printer attached to a computer. The light reflective material may provide an image and/or a message which may be visible when light is projected onto the reflective material in dark surroundings. Moreover, the light 25 reflective material may display the location of the garage door and/or the garage when, for example, light is projected onto the reflective material.

Fig. 2 illustrates a side view of the garage door 10 in a closed position which may be attached to a roller track assembly 30 50. The rows of garage door panels 12, 14, 16 and 18 may be mounted to the roller track assembly 50. Further, Fig. 2 illustrates the first layer 30 of the magnetic images 22, 24, 26 and 28 which may be attached to the rows of garage door panels 12,

14, 16 and 18, respectively. Still further, the second layers of the magnetic images 42, 44, 46 and 48 may be attached to the first layer 30 of the magnetic images 22, 24, 26 and 28, respectively. Moreover, the images on the second layers of the magnetic images 5 42, 44, 46 and 48 may align to construct the decorative design and/or the personal message or a segment of the decorative design and/or the personal message.

Fig. 3 illustrates a cross-sectional view of the magnetic image 22 and the top row of garage door panels 12 as taken along 10 line III-III of Fig. 1. Further, Fig. 3 illustrates the first layer 30 which may be attached to the second layer 42 with a bonding layer 60. Still further, the bonding layer 60 may be a liquid epoxy resin, such as, for example, diglycidyl ether bisphenol A (DGEBA) or the like.

15 Fig. 4 illustrates an alternate embodiment of a cross-sectional view of a magnetic image 122 and the top row of garage door panels 12 in an embodiment of the present invention. Further, Fig. 4 illustrates the magnetic image 122 which may have a first layer 30 and a second layer 42 wherein the first layer 30 may be 20 attached to the second layer 42 with a bonding layer 60. Further, the first layer 30 may be attached to the top row of garage door panels 12. Still further, the magnetic image 122 may have a protective layer 130 wherein the protective layer 130 may be attached to the second layer 42. The protective layer 130 may be 25 a laminating surface, such as, for example, orthophthalic polyester resin or the like. The laminating surface may be, for example, a clear transparent material. The laminating surface may have adhesive qualities. Further, the laminating surface may be secured to the second layer 42 with, for example, the adhesive qualities, 30 or the like. Moreover, Fig. 2 - Fig. 4 show an illustration of the connection between the elements of the present invention. In contrast, Fig. 1 is representative of the sizes and/or relative thickness of the layers in the present invention.

Alternatively, at least one magnetic image may attach to at least one row of garage door panels wherein at least one magnetic image may create the decorative design and/or the personal message. Further, the number of magnetic images required to create the decorative design and/or the personal message may be determined from the size of the decorative design and/or the personal message. Moreover, the number of magnetic images required to create the decorative design and/or the personal message may be determined from the number of rows of garage door panels within the garage door.

It should be understood that various changes and modifications to the presently preferred embodiments described herein will be apparent to those skilled in the art. Such changes and modifications may be made without departing from the spirit and scope of the present invention and without diminishing its attendant advantages. It is, therefore, intended that such changes and modifications be covered by the appended claims.